(b) if so, the institutions where such research is being conducted, and funds allotted for this purpose;

(c) the progress achieved and present position of such researches; and

(d) if not, the reasons why such research is not being conducted?

THE MINISTER OF STATE IN THE DEPARTMENT OF SCIENCE AND TECHNOLOGY IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT) : (a) to (c) Several CSIR laboratories, *viz.*, Indian Institute of Chemical Technology (IICT), Central Electrochemical Research Institute (CECRI), Central Glass & Ceramic Research Institute (CGCRI) and National Chemical Laboratory (NCL) have been carrying out work on diverse aspects of R &D on fuel cells for motor transport and stationary applications.

IICT has developed a stand alone version of methanol based fuel cell. CECRI has demonstrated the operation of the polymer electrolyte membrane fuel cell using platinised carbon electrodes with hydrogen and air at ambient temperature and pressure. CGCRI has developed components like electrolyte, cathode and anode for solid oxide fuel cell. NCL has developed a series of catalysts for reforming liquid feed stocks such as LPG and methanol as well as fuel cell stack for proton exchange membrane fuel cell. These laboratories have been allocated funds to the tune of Rs. 279 lakh for the fuel cell programmes.

(d) Does not arise.

Mineral Exploration by NMDC and IRE Ltd.

5244. SHRI V. V. RAGHAVAN : Will the Minister of STEEL be pleased to state :

(a) when will the joint mineral exploration by the National Mineral Development Corporation Limited (NMDC) and Indian Rare Earths Ltd. will start and what will be the investment;

(b) what are the minerals which will be explored and the area from which exploration will be made; and

(c) whether there is any scheme to produce value added products and if so, what are they?

THE MINISTER OF STATE OF THE MINISTRY OF STEEL (SHRI BRAJ KISHORE TRIPATHY) : (a) No joint mineral exploration by National Mineral Development Corporation Limited (NMDC) and Indian Rare Earths Ltd. (IREL) is envisaged.

(b) Does not arise, in view of (a) above.

(c) Yes, Sir, NMDC and IREL plan to jointly produce value added products. In the first phase, there is a scheme for setting up of a value addition plant *viz.* synthetic rutile plant based on the ilmenite produced by Indian Rare Earths

Limited (IREL) at its Chavara Plant. In the second phase, a mining, mineral separation and an ilmenite value addition plant based on the mining areas of Blocks 6 and 8 of the Neendakara-Kayamkulam belt of Kollam District, is envisaged. Also a Green-field Titanium Complex starting from mining and upto titanium sponge is proposed to be setup.

Production of Saleable Steel

5245. SHRI RUMANDLA RAAMACHANDRAYYA : Will the Minister of STEEL be pleased to state

(a) what was the saleable steel production of plants under the Steel Authority of India Ltd. during the year 2001-02 and production of the same expected in the year 2002-03;

(b) when SAIL is expected to achieve break even stage; and

(c) the steps being taken to boost the production by SAIL?

THE MINISTER OF STATE OF THE MINISTRY OF STEEL (SHRI BRAJ KISHORE TRIPATHY) : (a) The production of saleable steel by Steel Authority of India Limited during 2001-02 and 2002-03 are as under :

(Unit '000 t)

Plant/Unit	2001-02	2002-03
Bhilai Steel Plant	3383	3616
Durgapur Steel Plant	1527	1585
Rourkela Steel Plant	1354	1526
Bokaro Steel Plant	3200	3360
Alloy Steels Plant	84	99
Salem Steel Plant	63	83
Visvesvaraya Iron & Steel Plant	87	84
SAIL	9697	10353

(b) If the present market trend continues, and with continuous improvement in production, sales and techno-economic performance SAIL is expected to break even soon.

(c) Some of the steps being taken by SAIL to boost production are :

(i) Ensuring adequate quantity and quality of inputs.

(ii) Improving equipment utilisation.

(iii) Aggressive marketing strategy to increase sales.